

AMENDMENTS TO THE SPECIFICATION

Before paragraph 0001, please enter the amendment as reflected in the following marked-up version of text:

DESCRIPTION BACKGROUND OF THE INVENTION

1. Field of the Invention

After paragraph 0001 and before paragraph 0002, please insert the text as shown below in underline:

2. Background and Related Art

In paragraph 0002, please amend the text as shown below in strikethrough and underline:

[0002] To manufacture components by cold or warm shaping, for example by forging, shaping machines are used in which shaping tools are placed, in particular percussive shaping machines such as hammers, crank presses, and screw presses, and in particular flywheel screw presses. The shaping process is performed on an ~~unmachined~~un-machined workpiece inserted into the tool by pressing or striking the tools together, thereby bringing the workpiece into its desired final shape.

In paragraph 0003, please amend the text as shown below in strikethrough and underline:

[0003] The manufacturing process is automated by the use of handling devices, in particular manipulators and industrial robots, for handling the workpieces. These handling devices take the ~~unmachined~~un-machined workpiece, in a first step usually from a hopper, and position the workpiece between the parts of the tool, usually having a two-piece design, which is placed in the shaping machine. After the handling device is removed from the working region of the shaping machine, the shaping process is carried out by moving the tool halves together. After the

tool is opened, the handling device grips the finished workpiece and deposits it in a finished parts hopper.

In paragraph 0004, please amend the text as shown below in strikethrough and underline:

[0004] The process reliability of the shaping process is principally a function of the precision with which the ~~unmachined~~un-machined workpiece to be machined is inserted into the shaping machine, specifically, into the working region, and deposited there. In order to meet these demanding requirements, in the setup of the shaping machine it is necessary to adjust the handling device precisely to the position of the working region of the tool. This is rather laborious and time-consuming, and the setup process is consequently expensive.

In paragraph 0007, please amend the text as shown below in strikethrough and underline:

[0007] If according to the prior art a periodic checking of the position of the tool and adjustment of the handling device is omitted, it is possible to keep the setup time low and/or achieve high productivity. However, this is achieved at the expense of process reliability or tool wear, since the positioning of the ~~unmachined~~un-machined workpiece by the handling device cannot be ensured with sufficient accuracy. There is the general risk that the ~~unmachined~~un-machined workpiece is inserted too imprecisely into the tool, resulting in the referenced problems.

After paragraph 0008 and before paragraph 0009, please insert the following text shown below in underline:

BRIEF SUMMARY OF THE INVENTION

In paragraph 0009, please amend the text as shown below in strikethrough and underline:

[0009] The object of the invention, therefore, is to propose a method and a device for shaping workpieces by which the referenced disadvantages may be at least partially overcome. It is also an object to enable rapid setup of the machine, in particular after tool replacement or tool-~~remachining~~re-machining, while at the same time ensuring a high degree of process reliability.

After paragraph 0028 and before paragraph 0029, please insert the following text shown in underline:

BRIEF DESCRIPTION OF THE DRAWINGS

In paragraph 0029, please amend the text as shown below in strikethrough and underline:

[0029] ~~The drawing~~Figure 1 illustrates an exemplary embodiment of the invention. The single figure shows a schematic view of a shaping machine having a tool and a handling device.

After paragraph 0029 and before paragraph 0030, please insert the following text shown in underline:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

In paragraphs 0030-0031, please amend the text as shown below in strikethrough and underline:

[0030] ~~The f~~Figure 1 shows only in a very schematic fashion a shaping machine 1 having a mounting 17 which clamps a tool 2. It is indicated, also only in a very schematic fashion, that the tool 2 has gravures 18, 19 which during the shaping process deform a workpiece (not illustrated) in such a way that it assumes a desired shape.

[0031] A handling device 3 provided with a gripper 16 is used to insert the ~~unmachined~~un-machined workpieces into the tool 2 of the shaping machine 1 and to convey the workpieces after the shaping process is completed. The workpiece is handled by the gripper 16. The handling device 3 has position measurement systems 14 and 15, which likewise are illustrated in the figure only in a very schematic fashion. The handling device 3 is connected to an evaluating means 11 which actuates a drive 20 for the axes of the handling device 3. In this manner, the gripper 16 can be moved by means of the handling device 3 into the positions necessary to position the workpiece.

On page 19, after the claims, please insert the following text shown in underline:

ABSTRACT OF THE DISCLOSURE